

two cases. Diabetic mellitus was newly diagnosed in the 92 y/o case and diabetic mellitus with poor control was impressed in the 65 y/o case. KUB disclosed suspicious emphysema around the mild distended urinary bladder of these two patients. Abdominal CT revealed diffuse air retention in the distended urinary bladder wall of both patients. Foley catheters were indwelled at once at ER and were admitted to our intensive care unit with antibiotic treatment. Conservative treatment were given in these two patients and they discharged weeks later without any complications. Lower urinary tract infection especially cystitis was commonly noted in our daily practice. Some conditions may aggravate the infection, for example, the immunocompromised status of the patient, voiding function, or any organic problem. We presented our experience in managing these two cases and reviewed the literature.

NDP20: SUCCESSFUL PENILE REPLANTATION FOLLOWING PENILE SELF-AMPUTATION: CASE REPORT AND LITERATURE REVIEW

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Purpose: Penile amputation is an uncommon injury resulting from self-mutilation, felonious assault, or accidental trauma. Although it is uncommon and rarely fatal, penile amputation is a challenging injury for Urologist to treat. Many factors should be taken into consideration of proper treatment. In this kind of patients, the mental and physical conditions are usually complicated. Rapid stabilization is very important to afford the appropriate time and specialization for surgical success. Currently, many reconstructive techniques provide an excellent outcome for penile replantation. We reported a case of soft palate squamous cell carcinoma under palliative chemotherapy who amputated his penis at the base with a sharp blade due to severe depression.

Materials and Methods: A 66-year-old man with soft palate squamous cell carcinoma, pT2N0M0, post surgery and local recurrence, was under palliative chemotherapy now. Two days before this emergent episode, he was just admitted due to dyspnea and electrolytes imbalance. He decided to discharge against advice before completing the treatment. After lunch, he locked himself in the bathroom and used kitchen knife to mutilate his penis. He was brought to our emergency department by his family. A clinical examination found a bloody and destroyed penis. One small piece of penile appendage was connected with actively bleeding penile stump by one side of prepuce. The exploratory surgery showed a complete transection of corpus cavernosum, corpus spongiosum, and urethra. A 14-French Silicon catheter was threaded through the glans and aligned with the proximal urethra. We began with interrupted 4-0 Vicryl sutures in a 360-degree fashion to connect urethra. Interrupted 4-0 Vicryl sutures were placed from ventral side of the tunica albuginea of the corpus spongiosum. Till the dorsal aspect of amputated penis, we carefully applied tension-free, interrupted 4-0 Vicryl sutures to re-approximate the tunica albuginea of the corpus cavernosum. A pressure dressing was placed around the anastomosis wound. After surgery, the patient was taken daily wound care.

Results: Penile amputation is a rare urologic emergency. The actual incidence of penile amputation is rare. The first documented case of macroscopic penile replantation was reported in 1929 by Ehrlich. Since then, there have been gradual rise of penile amputation, and 87% of cases were reported associated with an underlying psychotic disorder. Schizophrenia (51%) and depression (19%) were the two most common disorders. Immediate management includes two basic goals: resuscitation of the patient and preparation for surgical replantation of the penis. A secondary assessment is rapidly completed to identify additional injuries and stabilized the patients' psychotic status. The penis should be rinsed in a normal saline solution, wrapped in saline-soaked gauze, and placed in a sealed sterile bag. The bag and protected penis should be maintained hypothermic conditions, but awareness should be paid that the ice is not in direct contact with the penile skin. As for microsurgery toward penile replantation, the first cases were independently reported in 1977 by Cohen et al. and Tamai et al. The development of microsurgical techniques improved success with regard to penile replantation and has become the primary method for managing these patients. Most case reports showed good outcome despite some complication, e.g. fistula formation, skin necrosis, urethral stricture, absent sensation, and erectile dysfunction.

Conclusions: Cases of penile self-amputation are rare urological and psychiatric emergencies. Other than timely penile replantation, it is important to organize surgical and psychiatric teams immediately.

NDP21: CORRELATION BETWEEN URINE CRYSTALS AND MICRO STONES DETECTED BY QUANTITATIVE MICRO-RAMAN SPECTROSCOPY BEFORE AND AFTER THE ESWL

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Purpose: With the improvement of the stone management, less stone fragments could be collected after minimally-invasive management, especially after the extracorporeal shock wave lithotripsy (ESWL). But stone analysis still highly involves the further metabolic study and stone management policy. We tried to apply the micro-Raman spectroscopy (MRS) to quantitatively detect the urine crystals and the micro stones in the urine before and after the ESWL to make the correlation between them.

Materials and Methods: In the patients who received the ESWL, urine was collected as one shot in the morning and another one shot (within 1 hour) before and after the ESWL on the same day. Then we compared the result of the urine crystal types in the Pre-ESWL urine samples to the subsequently expelled micro urine stones in the Post-ESWL urine samples. All the urine crystal and micro urine stones were analyzed by the MRS-based method.

Results: 40 patients with subsequent stone expelling were included in the study. Post-ESWL urine samples from these patients were analyzed, including 26 single composition samples, 9 binary composition samples, and 5 ternary composition samples. There are six COM/COD samples, two COM/Uric acid samples, and one COM/HAP sample. Pre-ESWL urine crystal analysis revealed 86% correlation with the analysis of stone composition. In addition, the crystal type results showed a high correlation, more than 80%, between one shot morning Pre-ESWL urine samples and the post-ESWL urine samples.

Conclusion: This research successfully applied the quantitative MRS-based analysis technique, from bench to bedside, to measure the micro stone components in urine after the ESWL and proved high correlation between urine crystal in the one shot morning urine before the ESWL and post-ESWL micro stones.

NDP22: FACTORS INFLUENCING THE OUTCOME OF EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY FOR RENAL STONES AND URETERAL STONES: ONE HOSPITAL EXPERIENCE

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Purpose: Extracorporeal shock wave lithotripsy (ESWL) is a widespread method to manage both renal stones and ureteral stones. We investigated the patients who received ESWL in our hospital to find out which factors influenced the outcome.

Materials and Methods: From January, 2013 to December, 2013, we retrospectively reviewed the chart of 641 patients who underwent ESWL in our hospital. These patients were divided to the renal stone group and the ureteral stone group. We analyzed the patient character (such as age, sex, height, weight, BMI, and serum creatinine level) and the stone character (stone size, position, the hydronephrosis status detected by renal ultrasound, the pre-operative ureter stent placement). Success for stone-free was defined as <0.4 mm in follow up KUB plain film.

Results: The stone-free rate was 54.8% in all patients. The stone-free rates were 46.7% and 67.8% in renal stone group and ureteral stone group. In univariate logistic regression for all patients, we could find that age, BMI, stone size, pre-operative ureter stent insertion and ureter or renal stone were statistically significant to stone-free rate. In multivariate logistic